

March 2002

# WILDLAND FIRE MANAGEMENT

Improved Planning  
Will Help Agencies  
Better Identify  
Fire-Fighting  
Preparedness Needs



G A O

Accountability \* Integrity \* Reliability

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## Report Documentation Page

<b>Report Date</b> 00APR2002	<b>Report Type</b> N/A	<b>Dates Covered (from... to)</b> -
<b>Title and Subtitle</b> WILDLAND FIRE MANAGEMENT: Improved Planning Will Help Agencies Better Identify Fire-Fighting Preparedness Needs	<b>Contract Number</b>	
	<b>Grant Number</b>	
	<b>Program Element Number</b>	
<b>Author(s)</b>	<b>Project Number</b>	
	<b>Task Number</b>	
	<b>Work Unit Number</b>	
<b>Performing Organization Name(s) and Address(es)</b> U.S. General Accounting Office P.O. Box 37050 Washington, D.C. 20013	<b>Performing Organization Report Number</b> GAO-02-158	
<b>Sponsoring/Monitoring Agency Name(s) and Address(es)</b>	<b>Sponsor/Monitor's Acronym(s)</b>	
	<b>Sponsor/Monitor's Report Number(s)</b>	
<b>Distribution/Availability Statement</b> Approved for public release, distribution unlimited		
<b>Supplementary Notes</b>		
<b>Abstract</b> Each year, wildland fires on federal lands burn millions of acres of forests, grasslands, and desert, and federal land management agencies expend hundreds of millions of dollars to fight these fires. Wildland fires also threaten communities that are adjacent to federal lands areas referred to as the wildland-urban interface. During the 2000 fire season, one of the worst in 50 years, approximately 123,000 fires burned more than 8.4 million acres, or more than twice the 10-year national average, and cost the federal government over \$2 billion. At certain times, nearly 30,000 personnel worked on the fire lines, including the military and civilian firefighters from other countries. Calendar year 2001 was not as catastrophic as the previous year, but the more than 84,000 fires that occurred nonetheless burned about 3.6 million acres.		
<b>Subject Terms</b>		
<b>Report Classification</b> unclassified	<b>Classification of this page</b> unclassified	
<b>Classification of Abstract</b> unclassified	<b>Limitation of Abstract</b> SAR	

<b>Number of Pages</b>
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35
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United States General Accounting Office  
Washington, DC 20548

March 29, 2002

#### Congressional Requesters

Each year, wildland fires on federal lands burn millions of acres of forests, grasslands, and desert, and federal land management agencies expend hundreds of millions of dollars to fight these fires. Wildland fires also threaten communities that are adjacent to federal lands—areas referred to as the wildland-urban interface. During the 2000 fire season, one of the worst in 50 years, approximately 123,000 fires burned more than 8.4 million acres, or more than twice the 10-year national average, and cost the federal government over \$2 billion. At certain times, nearly 30,000 personnel worked on the fire lines, including the military and civilian firefighters from other countries. Calendar year 2001 was not as catastrophic as the previous year, but the more than 84,000 fires that occurred nonetheless burned about 3.6 million acres.

The departments of agriculture and of the interior are the primary wildland fire-fighting agencies in the federal government. To better prepare for fighting catastrophic fires, these agencies jointly developed a long-term fire-fighting strategy. This strategy, established in September 2000, has become known as the National Fire Plan (the plan). A major portion of the plan calls for increased fire-fighting capacity personnel and equipment so that federal agencies will be better prepared for future fires.

Five federal land management agencies—the Forest Service in the Department of Agriculture and the Bureau of Land Management, Bureau of Indian Affairs, National Park Service, and Fish and Wildlife Service in the Department of the Interior—are responsible for working together to accomplish the plan's objectives. In implementing the plan, the agencies are to, among other things, (1) reduce the high risk for fire around communities at the wildland-urban interface and (2) coordinate fire-fighting activities across the landscape; that is without regard to the administrative boundaries established for each agency's activities.

The plan is built upon the principles of the interagency National Fire Policy, which was established in 1995. This policy was jointly developed and endorsed by each of the federal land management agencies. The policy was updated in 2001 to address, among other things, concerns about the lack of progress in implementing many of the key policy requirements. As it relates to fire fighting, the policy requires that each burnable acre of federal land be covered by a fire management plan that,

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among other things, identifies how fires will be managed in a particular federal forest, park, or other land unit. These local fire management plans are to specify whether fires in particular areas should be suppressed immediately, controlled to some degree, or permitted to burn naturally. Each of these options has safety, cost, and natural resource implications. If a fire management plan does not address these and other policy requirements, local units are required to fully suppress all wildland fires. The information from each plan is a key factor that is incorporated into computer planning models to determine the amount and composition of fire-fighting resources needed at each local unit.

To help meet the National Fire Plan's objectives, the Congress almost doubled funding for the five federal agencies—from about \$1.6 billion in fiscal year 2000 to about \$2.9 billion in fiscal year 2001—and expressed its continuing support by appropriating \$2.2 billion for fiscal year 2002. Of the total funds provided, about \$830 million in fiscal year 2001 and \$903 million in fiscal year 2002 are to be used to increase fire-fighting preparedness.

To assess the agencies' progress in enhancing their capacity to prepare for and respond to wildland fires, you asked us to review the Forest Service and Interior's efforts under the National Fire Plan. As agreed with your offices, we analyzed the (1) effectiveness of the agencies' efforts to determine the amount of personnel and equipment needed, (2) status of the agencies' efforts to acquire additional fire-fighting resources as of September 30, 2001, and (3) results the agencies expect to achieve with these additional resources. As also agreed with your offices, we determined whether the Forest Service and Interior are consistent in their reporting of fire-fighting personnel costs.

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## Results in Brief

The Forest Service and the Interior agencies have not effectively determined the amount of fire-fighting personnel and equipment needed for responding to and suppressing wildland fires and, therefore, may not be as prepared as they could be to manage fires. The agencies' efforts are incomplete in two respects. First, over half of all the federal land management units still do not have fire management plans that meet the requirements of the 1995 national fire management policy; therefore, these units cannot fully determine the level of personnel and equipment they need. Of the 1,384 units managed by the five federal land management agencies, 695 units—covering over 119 million acres—either had plans that were out of date or had no plans at all, as of September 30, 2001. For example, many of the out-of-date plans did not identify areas at high risk,

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namely, those at the wildland-urban interface, as required by the policy. Agency fire managers told us that higher priorities precluded them from providing the necessary resources to prepare and update the plans. Second, agencies base their decisions about the amount and kind of personnel and equipment needed to reach a given level of fire-fighting preparedness on the results of computer models that use information from fire management plans. These models only take into account the personnel and equipment needed to fight wildland fires within each agency's administrative boundary, a customary practice according to agency officials. The models do not consider the fire-fighting resources that are available in adjacent jurisdictions that are needed for fighting fires that spread across these boundaries, as current policy requires. Therefore, the results of the current models do not accurately reflect the personnel and equipment needed to fight wildland fires as envisioned under the National Fire Plan. The agencies are aware of the problems with their fire management plans and the computer planning models and have established initiatives to address them, which they expect to complete in 2 to 6 years. The agencies' efforts to address these issues are a promising first step. However, in light of the past delays and low priority that these issues have received since the 1995 policy was established, it is critical that these initiatives be followed through and completed as expeditiously as possible. Until then, the agencies will continue to have difficulty in effectively determining their fire-fighting preparedness needs.

While the agencies do not have a clear sense of the total resources they need to effectively conduct their fire-fighting activities, they nonetheless have acquired considerably more personnel and equipment than were available in 2000. However, as of September 30, 2001, the Forest Service and Interior had not acquired all of the personnel and equipment they had identified as needed to implement the National Fire Plan. Most of the Interior agencies expect to reach 100 percent of their desired level of preparedness in fiscal year 2002. The Forest Service also expects to obtain all of the personnel it believes it needs in fiscal year 2002, but it and the Fish and Wildlife Service do not expect to obtain all the equipment they have identified as necessary until fiscal year 2003, at the earliest, because they had underestimated their funding needs under the National Fire Plan. Consequently, the two agencies are currently not fully prepared to fight wildland fires according to their own identified needs.

Although the Forest Service and the Interior agencies have received substantial additional funding, they have not yet developed performance measures to determine the extent to which these additional resources have resulted in more effective fire fighting as envisioned under the

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National Fire Plan. The Forest Service simply measures the amount of fire-fighting resources it will be able to devote to fire fighting at each location, regardless of risk. Without results-oriented performance measures, it is difficult to hold the Forest Service accountable for the results it achieves from the additional resources being provided. Interior's measures such as, putting out 95 percent of all fires during their first 48 hours are the same as those used prior to the development of the National Fire Plan. Although Interior's performance measures focus on results, it has not revised the measures to specifically reflect the results expected with the increased resources received under the plan. In addition, since both agencies are pursuing the same objectives under the plan, it is reasonable to expect that their performance measures be the same or similar. The agencies have acknowledged this shortcoming and while they have not yet identified what specifically will be done in this area, they plan to develop more consistent results-oriented performance measures. Agency officials estimate that these measures will not be in place until fiscal year 2004.

The Forest Service and the Interior agencies use different methods for reporting fire-fighting personnel costs—an approach that is not in keeping with the current fire policy's requirement for coordination and consistency across all aspects of fire management, including accounting for fire-related costs. In fiscal year 2001, the Forest Service changed its method for collecting fire personnel cost data to better reflect the cost of wildland fire suppression. As a result, beginning with 2001, the first year of the National Fire Plan, the agencies began collecting cost data differently. Accordingly, it will be difficult for agency officials, the Congress, or other interested parties to develop comparable data for analyzing fire-fighting personnel costs over time or making meaningful comparisons of spending trends among the Forest Service and Interior agencies. These difficulties will complicate effective oversight and monitoring of fire-fighting costs.

We are making several recommendations to the secretaries of agriculture and of the interior to help ensure that agencies develop (1) fire management plans that comply with the requirements in the national fire policy, especially in identifying resource needs in high-risk communities at the wildland-urban interface, (2) a consistent planning and budget system, incorporating a single computer-planning model to assess preparedness needs, that is consistent with the national fire policy, and (3) consistent, results-oriented performance measures to assess progress in increasing preparedness to reduce the risk of catastrophic wildland fires. In addition, we are recommending that the secretary of interior require the Interior agencies to change their method for allocating and reporting fire-fighting



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personnel costs—similar to that now being used by the Forest Service to better reflect the cost of wildland fire suppression.

The departments of interior and agriculture generally agreed with our recommendations. They acknowledged that more work needs to be done in the areas of completing fire management plans, developing consistent methodology to determine fire-fighting preparedness needs, and establishing common performance measures. In addition, they provided us with additional perspective and clarification in some areas discussed in the report. We have addressed these comments where appropriate.

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## Background

In recent years it has become clear that past fire suppression policies have not worked as effectively as was once thought. In fact, they have had major unintended consequences, particularly on federally owned lands. For decades the federal wildland fire community followed a policy of suppressing all wildland fires as soon as possible. As a result, over the years, the accumulations of brush, small trees, and other hazardous vegetation (underbrush) in these areas increased substantially. Since about one-third of all land in the United States is federally owned and consists largely of forests, grasslands, or other vegetation, the widespread buildup of this underbrush has created a national problem. Today, when a fire starts on federal lands, accumulated underbrush could act as fuel that leads to larger and more intense fires than would otherwise be the case. Accumulated underbrush, in turn, causes fires to spread more rapidly. This combination of factors greatly heightens the potential for fires to become catastrophic. As several recent studies have pointed out,<sup>1</sup> without changes in the way federal agencies prepare for and respond to wildland fires, communities that border fire-prone lands—commonly known as the wildland-urban interface—will increasingly be at risk for fire damage.

The 2000 fire season demonstrated the impact of past fire policies. In that year one of the most challenging on record large numbers of intense and catastrophic fires frequently surpassed the fire-fighting capacities of federal, state, and local agencies. Many of these fires became the out-of-control disasters that routinely led national television news broadcasts as they threatened or damaged the communities in their path. While most of these fires occurred in western states, other areas of the country were also

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<sup>1</sup> *Protecting People and Sustaining Resources in Fire-Adapted Ecosystems, A Cohesive Strategy*, U.S. Forest Service, (Oct. 13, 2000); *Interagency Report to Congress, National Fire Plan Implementation Strategy*, (January 2001); *Managing Wildland Fire, Enhancing Capacity to Implement the Federal Interagency Policy*, (December 2001).

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affected. These recent experiences have led the fire-fighting community across the country and policymakers at all levels of government to call for federal action to help mitigate this growing threat.

The Forest Service and Bureau of Land Management are the two major federal land management fire-fighting agencies. The Forest Service manages about 192 million acres of land in 155 national forests and grasslands, and the Bureau of Land Management manages about 264 million acres of land. Also involved are the National Park Service, the Bureau of Indian Affairs, and the Fish and Wildlife Service within the Department of the Interior. Together, these agencies are caretakers of over one-third of all the land in the United States.

The five land management agencies developed the National Fire Plan. The plan consists of five key initiatives:

- **Firefighting**—Ensure adequate preparedness for future fire seasons,
- **Rehabilitation and Restoration**—Restore landscapes and rebuild communities damaged by wildland fires,
- **Hazardous Fuel Reduction**—Invest in projects to reduce fire risk,
- **Community Assistance**—Work directly with communities to ensure adequate fire protection,
- **Accountability**—Be accountable, and establish adequate oversight and monitoring for results.

The plan is expected to be a long-term effort to be implemented over a 10-year period.

While the agencies are to use funding provided under the National Fire Plan to implement all five aspects of the Plan, they are to use the majority of these funds to increase their capacity for fire-fighting preparedness and suppression by acquiring and maintaining additional personnel and equipment. Agencies use preparedness funding at the beginning of each fire season to place fire-fighting resources in locations where they can most effectively respond to fires that start on federal lands. Agencies use fire suppression funding to control and extinguish wildland fires. This effort includes supporting fire-fighting personnel and equipment on the fire line and at the established fire camp.

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## Agencies Have Not Effectively Determined Fire-Fighting Preparedness Needs

The Forest Service and Interior have not effectively determined the level of fire-fighting personnel and equipment they need to fight wildland fires. As a result, they may not be as prepared as they could be to manage fires safely and cost-effectively. In managing wildland fires, the agencies rely primarily on (1) fire management plans, which contain information on how wildland fires should be fought, and (2) computer planning models that use the planning information to identify the most efficient level of personnel and equipment needed to safely and effectively fight fires. Of the five major federal land management agencies, only the Bureau of Land Management has fully complied with the fire policy requirement that all burnable acres have fire management plans. Furthermore, even though the fire policy calls for the agencies to coordinate their efforts, the Forest Service and Interior use three different computer planning models to determine the personnel and equipment needed to achieve their fire-fighting preparedness goals. Moreover, none of the models focus on the goals of protecting communities at the wildland-urban interface or fighting fires that go across the administrative boundaries of the federal agencies.

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## Outdated or Nonexistent Fire Management Plans Call into Question Agencies' Ability to Assess Resource Needs

Since 1995, the national fire policy has stated that fire management plans are critical in determining fire-fighting preparedness needs that is, the number and types of personnel and equipment needed to respond to and suppress fires when they first break out. Among other things, fire management plans identify the level of risk associated with each burnable acre including areas bordering the wildland-urban interface and set forth the objectives that a local forest, park, or other federal land unit is trying to achieve with fire. The plans provide direction on the level of suppression needed and whether a fire should be allowed to burn as a natural event to either regenerate ecosystems or reduce fuel loading in areas with large amounts of underbrush. In addition, fire management plans provide information that is entered into computer planning models to identify the level of personnel and equipment needed to effectively fight fires and ultimately help to identify the funding needed to support those resources.

As of September 30, 2001, 6 years after the national fire policy was developed, over 50 percent of all federal areas that were to have a fire management plan consistent with the requirements of the national fire policy were without a plan. These areas did not meet the policy's requirements because they either had no plans or had plans that were out of date with the policy requirements because, among other things, they did not address fighting fires at the wildland-urban interface. Table 1 shows, as of September 30, 2001, the Bureau of Land Management was the only

agency with all of its acreage covered by a fire management plan that was compliant with the policy. In contrast, the percent of units with noncompliant plans ranged from 38 percent at the Fish and Wildlife Service to 82 percent at the National Park Service.

**Table 1: Status of Agency Fire Management Plans, as of September 30, 2001**

Agency	Units that need a plan	Units with a plan	Percent of units with a plan	Units not compliant with 1995 fire policy <sup>a</sup>	Percent of plans not compliant	Burnable acres	Acres for units with a plan	Acres for noncompliant plans	Percent of burnable acres with noncompliant plans
BIA	157	78	50	79	50	54,315,537	41,071,301	14,868,951	27
BLM	60	60	100	0	0	263,584,784	263,584,784	0	0
FWS	648	419	65	252	38	73,233,806	70,403,316	4,577,378	6
FS	242	219	90	137	57	181,175,021	165,812,295	74,845,727	41
NPS	277	147	53	227	82	82,532,896	77,939,127	24,756,455	30
<b>Total</b>	<b>1,384</b>	<b>923</b>	<b>67</b>	<b>695</b>	<b>50.22</b>	<b>654,842,004</b>	<b>618,810,823</b>	<b>119,048,511</b>	<b>18.18</b>

<sup>a</sup>Includes units that do not have a fire management plan and units with a plan that does not comply with the national fire policy.

Legend:

BIA = Bureau of Indian Affairs

BLM = Bureau of Land Management

FWS = Fish & Wildlife Service

FS = Forest Service

NPS = National Park Service

Source: GAO's analysis of data from the Forest Service and Department of the Interior.

When we asked fire managers why fire management plans were out of date or nonexistent, they most often told us that higher priorities precluded them from providing the necessary resources to prepare and update the plans. Without a compliant fire management plan, some of these fire managers told us that their local unit was following a full suppression strategy in fighting wildland fires, as the current fire policy requires. That is, they extinguish all wildland fires as quickly as possible regardless of where they are without considering other fire management options that may be more efficient and less costly. Other fire managers told us that while their fire management plans were not in compliance with the national policy, they were still taking action to ensure their day-to-day fire-fighting strategy was following the more important principles outlined in the current policy, such as addressing the fire risks around communities in the wildland-urban interface.

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A January 2000 Forest Service report clearly demonstrates the importance of adequate fire management planning in determining the level of fire-fighting personnel and equipment needed.<sup>2</sup> In this report, Forest Service officials analyzed the management of two large wildland fires in California that consumed 227,000 acres and cost about \$178 million to contain. Fire managers at these fires did not have fire management plans that complied with the national fire policy. The report stated that a compliant fire management plan would have made a difference in the effectiveness of the suppression efforts. For example, without a fire management plan, the local fire managers were not provided with a “let burn” option. Had this option been available, it could have reduced the need for personnel and equipment for one of the fires and lowered total suppression costs.

The Forest Service and Interior acknowledge the need to complete and update their fire management plans. Both agencies have initiatives underway in response to the renewed emphasis on fire management planning under the National Fire Plan. Specifically, the agencies are developing consistent procedures and standards for fire management planning that will assist local units in their efforts to have fire management plans that are in compliance with the national fire policy. The agencies are expected to have a strategy in place by the spring of 2002 for accomplishing this objective. However, developing the procedures and standards and incorporating them into fire management plans at all local units is not likely to occur until 2003, at the earliest. Because it has been 7 years since the 1995 policy first directed agencies to complete their fire management plans, and the agencies have given the issue low priority, it is critical that the Forest Service and Interior complete this initiative as expeditiously as possible.

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**Existing Planning Models Are Not Adequate for Determining the Number of Personnel and Equipment Needed to Meet Fire-Fighting Policy Objectives**

Fire management planning decisions about the amount and types of personnel and equipment needed to reach a given level of fire-fighting preparedness are based on computer planning models that the Forest Service and the Interior agencies have developed. The national fire policy directs the agencies to conduct fire management planning on a coordinated, interagency basis using compatible planning processes that address all fire-related activities without regard to the administrative boundaries of each agency. This level of interagency coordination is not

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<sup>2</sup> Policy Implications of Large Fire Management: A Strategic Assessment of Factors Influencing Costs, January 2000.

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now being achieved because of historical differences in the missions of the five land management agencies.

The Forest Service and Interior agencies are currently using three different computer planning models to identify the personnel and equipment needed to respond to and suppress wildland fires.<sup>3</sup> As a result, each model reflects different fire-fighting objectives and approaches in calculating the level of resources needed to fight fires safely and cost-effectively in terms of its own mission and responsibilities. This disparate approach is inconsistent with the current national fire management policy, which calls upon the agencies to use a coordinated and consistent approach to fire management planning.

More importantly, each of the models only considers the fire-fighting resources available on the lands for which the agency has direct fire protection responsibilities. According to agency officials, this approach has been the general practice for fire management planning. Fire protection of nonfederal lands, including lands in the wildland-urban interface that pose direct risks to communities, are not incorporated into the models. Yet, as set out in the national fire policy, these are the areas that are currently the focus of determining appropriate fire preparedness levels. Moreover, since wildland fires do not respect agency or other administrative boundaries, the policy states that fire management planning must be conducted across federal boundaries, on a landscape scale. However, none of the models are currently designed to achieve this objective. Because the models focus only on federal lands and the personnel and equipment available at the local unit, they do not consider the fire-fighting resources that are available from state and local fire authorities. These resources could decrease the need for federal fire-fighting personnel and equipment in certain areas. As a result of these problems with the computer models, the Forest Service and Interior are not able to adequately determine the number of fire-fighting personnel and equipment needed to meet fire-fighting policy objectives in the most cost-effective manner. The Forest Service and Interior have acknowledged our concerns and are reviewing how best to replace the three different computer planning models currently being used.

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<sup>3</sup> The Forest Service, Bureau of Land Management, and the Bureau of Indian Affairs use the Interagency Initial Attack Analysis model under the National Fire Management Analysis System. The National Park Service uses the FIREPRO model, and the Fish and Wildlife Service uses the FireBase model.

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A revised system for determining the resources needed would also help the agencies be responsive to congressional concerns. Past appropriations committee reports have directed the Forest Service and Interior to provide more detailed budget submissions on fire management planning and to base these submissions on common methods and procedures. These reports also directed the agencies to have a coordinated approach for calculating readiness, including consideration of the resources available from state and local fire authorities. The agencies are in the early stages of replacing the models with an interagency, landscape-scale fire planning and budget system that is expected to provide a single, uniform, and performance-based system for preparedness and fire management planning. We are encouraged by this initiative but remain concerned over its implementation because the agencies have acknowledged that, even with aggressive scheduling, full implementation may take 4 to 6 years. Until then, fire management planning will not comply with current fire policy, continue to be conducted based on each agency's missions, and remain focused within the boundaries of each local federal unit.

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## Agencies Have Not Yet Obtained All of the Additional Fire-Fighting Personnel and Equipment to Meet Needs They Identified

While the agencies don't have a clear sense of the total resources they need to effectively conduct their fire-fighting activities, the Forest Service and Interior have nonetheless made progress in acquiring more fire-fighting personnel and equipment with the additional funding received under the National Fire Plan. However, as of September 30, 2001, they had not reached the full level of preparedness they had identified as necessary to carry out the objectives of the plan. Most of the Interior agencies are likely to reach their full level of preparedness in fiscal year 2002, while the Forest Service and the Fish and Wildlife Service will not reach this level until 2003 or later.

Prior to the initiation of the National Fire Plan, the Forest Service and Interior estimated they were at about 74 percent and about 83 percent, respectively, of their desired preparedness levels. To increase these levels, the agencies needed to hire, develop, and support additional fire managers and fire fighters; and procure more fire-fighting equipment. The funding received in fiscal year 2001 is designed to help the agencies achieve these goals.

The agencies are making good progress in hiring additional personnel. As of September 30, 2001, the Forest Service had filled about 98 percent of its needed positions and the Interior agencies, in aggregate, had filled over 83 percent of their positions. Because the availability of experienced fire-fighting personnel was limited and the agencies were competing for the

same personnel in many cases, the agencies were not able to hire all of the fire-fighting personnel identified as needed in fiscal year 2001. The agencies have initiated new recruiting and outreach programs and expect to hire the remaining personnel they need by the 2002 fire season. Table 2 shows the status of the agencies' efforts in acquiring personnel.

**Table 2: Status of Agency Efforts to Acquire the Number of Fire-Fighting Personnel Identified as Needed, as of September 30, 2001**

Agency	Temporary positions			Permanent positions <sup>a</sup>			All positions <sup>b</sup>		
	2001 total positions needed	2001 actual positions	Percent of needed positions acquired	2001 total positions needed	2001 actual positions	Percent of needed positions acquired	2001 total positions needed	2001 actual positions	Percent of needed positions acquired
Bureau of Land Management	1,731	1,402	81.0	1,895	1,296	68.4	3,626	2,698	74.4
Bureau of Indian Affairs	864	714	82.6	1,013	1,104	109.0	1,877	1,818	96.9
Fish and Wildlife Service	110	126	114.5	328	291	88.7	438	417	95.2
National Park Service	244	239	98.0	411	325	79.1	655	564	86.1
<b>Total for the Interior agencies</b>	<b>2,949</b>	<b>2,481</b>	<b>84.1</b>	<b>3,647</b>	<b>3,016</b>	<b>82.7</b>	<b>6,596</b>	<b>5,497</b>	<b>83.3</b>
<b>Forest Service</b>	<b>5,591</b>	<b>5,483</b>	<b>98.1</b>	<b>5,416</b>	<b>5,267</b>	<b>97.2</b>	<b>11,007</b>	<b>10,750</b>	<b>97.7</b>

<sup>a</sup>Permanent positions include both permanent and career seasonal positions.

<sup>b</sup>These numbers would fluctuate depending on the time of year due to the seasonal workforce and fire season.

Source: Bureau of Land Management; Bureau of Indian Affairs; Fish and Wildlife Service; National Park Service; and the Forest Service.

Regarding equipment, by the end of fiscal year 2002, most of the Interior agencies are likely to have all the fire-fighting equipment they identified as needed for implementing the National Fire Plan.<sup>4</sup> During fiscal year 2001, the Bureau of Land Management and Bureau of Indian Affairs ordered the equipment it needed, but about 31 percent of the equipment will not be delivered until fiscal year 2002. This specialized equipment, such as fire

<sup>4</sup> The National Park Service did not need any additional equipment to meet its full level of preparedness.



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engines and water tenders, had to be built after contracting for its purchase, which delayed its delivery.

The Forest Service and the Fish and Wildlife Service have made much less progress in purchasing the equipment they said they needed to achieve their fire-fighting preparedness goals. The Forest Service did not include in its budget request all of the necessary funds to procure equipment and pay for associated costs.<sup>5</sup> Forest Service officials told us that this incomplete request was an oversight on their part. This underestimate of equipment and associated costs resulted in a total budget shortfall of about \$101 million in fiscal year 2001, according to Forest Service estimates. Consequently, the agency has not been able to procure hundreds of pieces of fire-fighting equipment fire engines, bulldozers, water tenders, and trucks and associated supplies for the equipment or cover expenses for some other operating costs that are required if the agency is to reach its full level of fire-fighting preparedness. Until this equipment is acquired, a few fire managers are taking measures to compensate for these shortcomings, such as contracting for needed equipment with state and private suppliers. According to the Forest Service, the agency may not attain the level of fire-fighting capacity it originally envisioned in the National Fire Plan until fiscal year 2003 at the earliest.

Like the Forest Service, the Fish and Wildlife Service is not certain when it will get the equipment it identified as needed to implement the National Fire Plan. In October 2000, the agency did not take the opportunity it had to request funds for equipment to carry out the plan's objectives. As a result, the agency did not have about \$10 million it estimated needing to purchase 90 pieces of fire-fighting equipment it identified as necessary. According to Fish and Wildlife Service officials, they were not aware that they could request additional one-time funds to purchase more equipment. Fish and Wildlife Service officials also told us they have no plans to request additional funding for their equipment.

In commenting on a draft of this report, the departments acknowledged that the full level of preparedness as identified under the National Fire Plan was not reached by the end of fiscal year 2001. They stated that the Forest Service and the Fish and Wildlife Service will reach this level in 2003 or early 2004. They also said that in order to maintain the full level of

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<sup>5</sup> Associated costs included supplies, funds to pay for personnel change of stations, and general overhead and administrative costs.

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preparedness in 2003 and beyond, the funding level may need to increase to keep pace with inflation and new standards and requirements for crew safety, initial attack effectiveness, and direct and indirect management oversight and support such as salaries, aviation contracts, and facility maintenance.

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## Agencies Have Not Identified the Results They Expect to Achieve with the Additional Funding Provided under the National Fire Plan

Even though they have received over \$800 million to increase their fire-fighting capacity, the Forest Service and Interior have not yet identified the results they expect to achieve with these additional resources. It, therefore, will be difficult to determine the extent to which these additional personnel and equipment have increased the level of fire-fighting preparedness.

Both the Forest Service and Interior recognize the need to develop methods for determining the impact of the hundreds of millions of dollars provided to increase fire-fighting capacity. To facilitate such accountability, both the Forest Service and Interior have developed performance measures. However, the measures do not focus on the results to be achieved and are not consistent among the agencies.

The Forest Service's performance measure is designed to provide information on the amount of personnel and equipment it has to respond to a fire. This information will only indicate the amount of resources the Forest Service is using to address its fire-fighting needs.<sup>6</sup> It will not indicate whether the agency has improved the effectiveness of its fire fighting with the additional personnel and equipment.

The Interior agencies, on the other hand, have a performance measure that focuses on the goals they expect to achieve with their fire-fighting resources. However, the performance measure they are using is not specifically tied to the increased fire-fighting resources provided under the National Fire Plan. Instead, the Interior agencies are using the same goal they had prior to receiving additional resources provided to implement the

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<sup>6</sup> The Forest Service is measuring its wildland fire preparedness performance by whether it achieves its Fire Fighter Production Capability (FFPC) goals. FFPC equates to staffing levels of initial attack resources identified at the Most Efficient Level budget option using the Forest Service's computer planning model. FFPC reflects the ability of funded resources to produce fire line, measured in chains of production per hour.

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plan. Specifically, the Interior agencies' objective is to contain 95 percent of all fires during initial attack.<sup>7</sup>

Even if the agencies' performance measures were more results-oriented, they would only fulfill the requirements of the national fire policy if they were also consistent with each other. However, the measures are not consistent. The agencies were unable to provide us with a rationale for why the measures are not consistent.

The Forest Service and Interior acknowledge that the development of a common set of results-oriented performance measures is critical to implementing the National Fire Plan's fire-fighting preparedness objectives. They are now working together to develop a common set of wildland fire management performance measures that will be results-oriented, measurable, valid, and connected to the goals contained in the National Fire Plan. However, agency officials estimate that the planned completion date for developing and implementing these measures will be late in fiscal year 2004—more than 4 years after the increased funding was provided.

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## Forest Service and Interior Use Different Methods for Reporting Fire-Fighting Personnel Costs

Until the implementation of the National Fire Plan in 2001, both the Forest Service and the Interior agencies used a similar method to account for their fire-fighting personnel costs. However, beginning in fiscal year 2001, the Forest Service changed its accounting method for these costs. As a result, the agencies do not now use a consistent approach for collecting and reporting on fire-fighting costs, which makes budget cost comparisons and analyses more difficult.

When the Forest Service prepares its annual budget for wildland fire management activities, the costs for personnel normally assigned to managerial, administrative, and other staff positions in the fire program are budgeted for in the "Wildland Fire Preparedness" account. Personnel in these categories are also frequently assigned to help fight wildland fires during the fire season. When these staff were assigned to a wildland fire

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<sup>7</sup> A successful initial attack occurs when a fire is controlled by the units first dispatched to an incident without a significant augmentation of reinforcements, thereby preventing further extension of the fire. Typically, initial attack fires are controlled within the first 48 hours or are kept to less than 100 acres. The actual percent of fires contained through initial attack can vary depending on uncontrollable factors such as weather, fuel condition, and fire season severity.

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prior to fiscal year 2001, the first 8 hours of their workday their base hours were charged to the preparedness account where the funds were originally budgeted. Any additional time spent working on wildland fires above their base hours was charged to the “Wildland Fire Suppression” account. However, starting in fiscal year 2001, the first year of the National Fire Plan, the Forest Service directed its personnel to charge all of their time to the suppression account when assigned to a wildland fire.

According to the director of program and budget analysis, the Forest Service made the accounting change to better reflect the cost of wildland fire suppression.<sup>8</sup> We have previously supported this type of accounting for personnel costs because it better tracks how these costs are actually incurred rather than as budgeted. The change will reduce costs charged to the Forest Service’s preparedness activities and increase costs charged to its suppression activities when compared with years past and with Interior’s accounting for its costs charged to similar activities. Because the Forest Service and Interior now use different methods of accounting for the cost of personnel assigned to wildland fires, it will now be much more difficult for the Congress and other decisionmakers to compare and analyze budget and cost information on the fire preparedness and suppression activities of the agencies at a national level.

It is important to note that this accounting change will likely affect the Forest Service’s fire-fighting budgets in future years. Over time, this accounting change is likely to result in an overall increase in the cost of fighting wildland fires in the Forest Service. As more and more managerial and administrative personnel are assigned to fire suppression activities, the total costs for these activities will increase. Since suppression budgets are based on a 10-year rolling average of suppression costs, future suppression budgets will increase. This situation will also add to the difficulty of comparing and analyzing Forest Service and Interior fire activities over time.

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## Conclusions

To effectively reduce the risk of catastrophic fire, the Forest Service and Interior are engaged in a long-term effort to reduce the large buildup of underbrush and other vegetative fuels that have accumulated to dangerous levels over the past several decades. This will ultimately reduce the

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<sup>8</sup> U.S. General Accounting Office, *Forest Service: A Framework for Improving Accountability*, [GAO/RCED/AIMD-00-2](#), (Washington, D.C., Oct. 13, 1999).

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number of large catastrophic fires that occur annually. However, until the Forest Service and Interior make progress in this area, it is even more critical to have adequate levels of personnel and equipment available to fight the intense, quick-spreading wildland fires that characterize current conditions in many areas. As the national fire plan and its underlying policy envision, these fire-fighting preparedness efforts will be much more effective if the agencies involved coordinate their efforts.

The federal agencies have made progress in enhancing their fire-fighting capacity, but much work remains. Most fire management plans have yet to be updated so that they are consistent with current policy requirements. Until then, the coordinated approach to fire fighting called for in the National Fire Plan—having the agencies’ plans reach beyond individual administrative boundaries—will not be realized. Moreover, it may be 6 years before the agencies develop an integrated, more consistent planning and budget system that includes a single model that incorporates information from updated fire management plans. Without this system in place, the results of the models currently being used cannot be relied upon for effectively identifying fire-fighting personnel and equipment needs.

While the agencies are developing these plans and a new planning and budgeting system, they cannot now measure the results achieved with their additional personnel and equipment. The agencies plan to have consistent, results-oriented performance measures in place by fiscal year 2004. Until then, the Congress and the public cannot readily compare results across agencies. Accountability would be further enhanced if both the Forest Service and the Interior agencies were using the same accounting methods for collecting and reporting on fire preparedness and fire suppression costs. Since they are not, Congress and the public have no consistent basis for comparing or analyzing these costs or associated budget requests.

For the most part, the agencies acknowledge the need for improvements in each of these areas and have plans to address them. We are concerned, however, that these improvements may not occur expeditiously. It has been 7 years since establishment of the national fire policy where the agencies first acknowledged the need to address many of these issues. Nonetheless, they are only now—with the impetus provided by the National Fire Plan developing implementation plans and strategies for addressing them. Given this history and the added need to make certain that the substantial increase in funding that has come with the plan is used most efficiently, it is critical that the agencies be held accountable for following through on their plans for improvements. To make sure this

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occurs will require sustained monitoring and oversight by top agency officials and the Congress. If and when these improvements are completed, the agencies and the Congress will have a more credible basis for determining fire-fighting preparedness needs.

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## Recommendations for Executive Action

In order to better meet the objectives of the National Fire Plan and improve the Forest Service's and Interior's ability to identify their fire-fighting preparedness needs, we recommend that the secretaries of agriculture and of the interior require the heads of their respective fire agencies to ensure that ongoing initiatives to address weaknesses in their preparedness efforts are fully implemented in a timely and consistent manner and across the agencies. In particular, the agencies need to

- ensure that fire management plans are completed expeditiously for all burnable acres and are consistent with the national fire policy;
- establish a single planning and budgeting system, applicable to all fire agencies, to determine fire-fighting personnel and equipment needs in accordance with up-to-date fire management plans; and
- develop performance measures identifying the results to be achieved with the personnel and equipment obtained with the additional funding provided under the National Fire Plan.

We also recommend that the secretary of interior require the Interior agencies to change their method for allocating and reporting fire-fighting personnel costs—similar to the method now being used by the Forest Service to better reflect the cost of wildland fire suppression.

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## Agency Comments and Our Evaluation

We provided a draft of this report to the departments of agriculture and of the interior for review and comment. The departments provided a consolidated response to our report. They generally agreed with our recommendations to better identify their fire-fighting preparedness needs and provided additional information on the initiatives being taken. However, in commenting on our recommendation dealing with the development of performance measures to identify the results they are achieving under the National Fire Plan, the departments indicated they had already developed such measures. We disagree. The departments acknowledge elsewhere in their response that more work is needed to establish common performance measures and recent meetings with department officials have indicated that agreement on common measures has not yet been obtained.

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In commenting on this report, the departments expressed concerns that our report (1) did not give the departments enough credit for the progress they have made to increase their fire-fighting capacity under the National Fire Plan; (2) suggests that by simply updating fire management plans, fire managers will then be allowed to implement “let burn” decisions; and (3) infers that allowing more fires to burn naturally will automatically provide greater public and fire fighter safety.

With respect to the first issue, we acknowledge the difficulty of the departments’ tasks under the National Fire Plan and, as noted in the report, recognize that the agencies have made progress in increasing their fire-fighting preparedness needs. We also agree it is important to look at results under the plan to place in proper perspective the issue of accountability in fire-fighting preparedness. However, 1 year after receiving \$830 million in additional preparedness funding under the National Fire Plan in fiscal year 2001, the agencies are still putting out the same percentage of fires at initial attack. To us, it is reasonable to expect that with the substantial increase in preparedness funds and the increased resources that these funds allowed the agencies to acquire, the results achieved would have been greater than they were in the past year.

Second, the departments stated that the full range of fire fighting options outlined in a local unit’s fire management plan, including a “let burn” option, can only be used when the overall land management plan provides for them. In this regard, they noted that in many cases land management plans have not been updated to reflect the full range of fire-fighting options as outlined in fire management plans. As a result, they contend that until the land management plans are updated, the fire management plans that are out of date cannot be revised to include all fire-fighting options, such as a “let burn” option. However, according to the 2001 update to the national fire policy, “the existence of obsolete land management plans should not be reason for failure to complete or update Fire Management Plans.”

Third, the departments stated that our report appears to state that allowing more fires to burn naturally will automatically provide greater public and fire fighter safety. We disagree. Our report states that fire management plans provide fire managers with direction on the level of suppression needed and whether a fire should be allowed to burn as a natural event to regenerate ecosystems or reduce fuel loading in areas with large amounts of underbrush and other vegetative fuels.

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Where appropriate, we have incorporated the departments' position on the different issues discussed in the report. The departments' comments appear in appendix II.

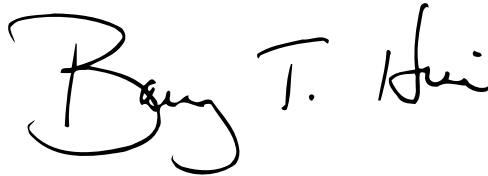
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As arranged with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies of this report to the secretary of agriculture; the secretary of the interior; the chief of the Forest Service; and the directors of the Bureau of Land Management, National Park Service, and Fish and Wildlife Service; deputy commissioner, Bureau of Indian Affairs; director, Office of Management and Budget; and other interested parties. We will make copies available to others upon request. This report will also be available on GAO's home page at <http://www.gao.gov/>.



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If you or your staff have any questions about this report, please contact me at (202) 512-3841.

A handwritten signature in black ink that reads "Barry T. Hill". The signature is written in a cursive style with a large, looped "B" and a distinct "Hill" at the end.

Barry T. Hill  
Director, Natural Resources  
and Environment

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List of Requesters:

The Honorable Larry Craig  
Ranking Minority Member  
Subcommittee on Public Lands and Forests  
Committee on Energy and Natural Resources  
United States Senate

The Honorable James Hansen  
Chairman, Committee on Resources  
House of Representatives

The Honorable Scott McInnis  
Chairman, Subcommittee on Forests and Forest Health  
Committee on Resources  
House of Representatives

The Honorable Joe Skeen  
Chairman, Subcommittee on Interior  
Committee on Appropriations  
House of Representatives

The Honorable Bob Goodlatte  
Chairman, Subcommittee on Department Operations,  
Oversight, Nutrition, and Forestry  
Committee on Agriculture  
House of Representatives

The Honorable Don Young  
House of Representatives

# Appendix I: Scope and Methodology

The overall objective of this review was to determine how the federal land management agencies the Forest Service within the Department of Agriculture and the Bureau of Land Management, National Park Service, Fish and Wildlife Service, and Bureau of Indian Affairs within the Department of the Interior prepare for wildland fires while meeting key objectives of the National Fire Plan. A primary objective of the plan is to ensure an adequate level of fire-fighting preparedness for coming fire seasons.

Specifically, to assess the effectiveness of the agencies’ efforts to determine the amount of fire-fighting personnel and equipment needed, we reviewed the extent to which the agencies adopted fire management plans as required by the national fire policy and the types and scope of computer planning models that the agencies use to determine their desired level of fire-fighting preparedness needs. We discussed these issues with officials at the five agencies’ headquarters offices and at the National Interagency Fire Center, in Boise, Idaho; BLM state and district offices, selected national forests, national parks, and state offices, and the National Academy of Public Administration. We also obtained, reviewed, and analyzed supporting documentation, such as laws, regulations, policies, and reports on wildland fires. Table 3 shows the sites we visited.

Table 3: Sites Visited by GAO	
Agency and site	State
<b>Forest Service</b>	
Boise National Forest	Idaho
Gallatin National Forest	Montana
George Washington-Jefferson National Forest	Virginia
Humboldt-Toiyabe National Forest	Nevada
Lolo National Forest	Montana
National Forests of North Carolina	North Carolina
Stanislaus National Forest	California
Tahoe National Forest	California
Region 1	Montana
Region 4	Idaho, Nevada, & Utah
Region 5	California
<b>National Park Service</b>	
Great Smoky Mountains National Park	North Carolina & Tennessee
Shenandoah National Park	Virginia
Yellowstone National Park	Wyoming
Yosemite National Park	California

Agency and site	State
<b>Bureau of Land Management</b>	
Boise State and district offices	Idaho
Reno State and district offices	Nevada
<b>National Interagency Fire Center</b>	
Office of the Director	Idaho
Joint Fire Science Research Program	Idaho
<b>State</b>	
Idaho State Forester	Idaho

We selected these sites to (1) meet with National Interagency Fire Center officials and the Interior agencies' wildland fire managers who are located in Boise, Idaho, (2) obtain geographical dispersion of sites between eastern and western states, although more western sites were selected because more wildland fires occurring in those areas, and/or (3) to visit sites identified by agency officials as having recent fire history or as being good examples of fire-fighting preparedness. In addition, we selected more of the Forest Service's sites than sites from other agencies because the Forest Service receives most of the fire-related funding.

To determine the status of the agencies' efforts to acquire additional fire-fighting resources, we contacted each of the five land management agencies to obtain information on the number of temporary and permanent positions acquired as of September 30, 2001, and compared this information with the number of positions needed to meet the agencies' desired level of fire-fighting resources. We also obtained information from these agencies on the amount of fire-fighting equipment obtained with the increase in funding that they had identified as needed to carry out the objectives of the National Fire Plan.

To determine the results that the agencies expected to achieve with their additional fire-fighting resources as determined through performance measures, we obtained documentation from the land management agencies and discussed with agency officials their management practices, including how they measure their progress in meeting fire-fighting preparedness objectives under the National Fire Plan.

Finally, to determine whether the Forest Service and Interior were consistently reporting their fire-fighting personnel costs, we obtained information on the practices the agencies use to report their fire-fighting personnel costs. We compared any differences between the Forest Service and the Interior agencies on their practices in accounting for their fire-fighting preparedness funds.

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We conducted our work from February 2001 through January 2002 in accordance with generally accepted government auditing standards.

# Appendix II: Comments from the Departments of Agriculture and of the Interior



THE DEPARTMENT OF AGRICULTURE

WASHINGTON



THE DEPARTMENT OF THE INTERIOR

March 22, 2002

Barry T. Hill  
Director  
Natural Resources and Environment  
United States General Accounting Office  
441 G. Street, N.W.  
Washington, D.C. 20548

Dear Mr. Hill:

Thank you for the opportunity to comment on the draft report "Wildland Fire Management: Improved Planning Will Help Agencies Better Identify Fire-Fighting Preparedness Needs" (GAO-02-158).

In general, the Department of the Interior (DOI) and the Department of Agriculture (USDA) agree with the Recommendation for Executive Action that states that the agencies need to address several weaknesses in our preparedness efforts. We acknowledge that there is more work to be done in the areas of completing Fire Management Plans, developing consistent methodology to determine preparedness, firefighting and fuels treatment needs, and establishing common performance measures. We are pleased that the GAO acknowledges that efforts are underway to remedy the key findings contained within the draft report.

As we have mentioned before in responses to GAO reports, it is important to look at the result of the past fire season to place in proper perspective the issue of accountability in fire-fighting preparedness. Results are important. This past fire season almost five million fewer acres were burned as compared to the acres burned in 2000. An equally important performance measure that shows the level of preparedness is the fact that 95 % of fires were contained upon initial attack. This occurred in a year when fuel load conditions on public lands continued to be severe and when several regions of the country experienced severe drought. Because of the unpredictability of fire ignitions, we cannot claim full credit. But there is evidence that the additional funds requested by the Administration and provided by Congress, greater coordination among federal agencies, and the increasing number of fuel treatments have made a difference in the suppression and containment of fires, including fires located in the wildland urban interface.

We would like to comment on the finding that "... many of the out-of-date plans did not identify communities at risk, namely, those at the wildland urban interface, as required by policy." Even though we believe it is necessary and we are working towards interagency fire planning that will address suppression needs in the wildland urban interface, neither the 1995 Federal Wildland Fire Management Policy nor the 2001 Fire Policy Review require Fire Management Plans to contain a list of communities at risk. We are not certain whether a listing of "communities at risk" in a Fire Management Plan has value if the prevention, suppression, and fuels management needs have been addressed in a collaborative fashion among all stakeholders. For a variety of reasons, different communities may support or not support the listing of their community as "at risk".

USDA, Forest Service, and most DOI bureaus are required by authorizing language to make all land management decisions in land use planning documents. The full range of fire management program options must be approved by the land use plan. The report indicates that by simply updating fire management plans, fire managers will then be allowed to implement "let burn" decisions; that assumption is incorrect. Fire program options can only be implemented when the land use plan provides for it, and in many cases the land use plans have not been updated to reflect the 1995 Federal Wildland Fire Management Policy or the 2001 Policy Review. "Let burn" decisions are much more than fire efficiency issues. Fire decisions are influenced by land management allocations along with critical wildlife habitat, sensitive fisheries, Endangered Species Act considerations, public welfare and safety issues, and other considerations. Land use plans must address the full range of fire program management options regarding these environmental issues. In many cases, these plans must be revised prior to implementing the fullest range of options.

The first paragraph in the section titled, "Agencies Have Not Yet Obtained All of the Additional Fire-Fighting Personnel and Equipment to Meet Needs They Identified", is misleading. The Departments acknowledge that the full level of preparedness as identified under the National Fire Plan, was not reached by the end of FY 2001. We recommend that GAO consider rewording the last sentence of this paragraph to more accurately reflect the level of preparedness as follows:

Three of the Interior's agencies are likely to reach the full level of preparedness, as defined in the 2001 National Fire Plan, in fiscal year 2002. The Forest Service and the Fish and Wildlife Service will reach this level in 2003 or early 2004. In order to maintain the full level of preparedness in 2003 and beyond, the funding level may need to increase to keep pace with inflation and new standards and requirements for crew safety, initial attack effectiveness, and direct and indirect management oversight and support such as salaries, aviation contracts, and facility maintenance.

We are disappointed that the GAO does not acknowledge the enormous accomplishments that the agencies have made to provide better protection for communities and natural resources in the relatively short life span of the National Fire Plan (NFP). The dramatic increase in funding for the NFP was a significant, unforeseen event. The initial President's budget for FY2001 was a mirror image of the FY 2000 budget. Even though there was significant fire activity, there was little reason to expect any increase. Similarly large fire activity years such as 1987, 1988, and 1994 did little to change ensuing budgets. Consequently, the agencies needed to staff up and prepare to make the large changes necessary to fully implement the objectives of the National Fire Plan. This was especially true in providing new engines and other specialized equipment. In some cases, units substituted alternative firefighting resources, such as extra crews for new engines. Nonetheless, the firefighting capacity for all agencies was substantially increased in FY 2001 and more acres of hazardous fuels were treated. The Departments increased their firefighting force by nearly 5,500 and increased hazardous fuels accomplishments by over 1 million acres. Over 600 new pieces of firefighting equipment were ordered, including specialized wildland fire engines which will improve our effectiveness during initial attack. Contracts for the use of over 40 additional aircraft were completed, adding to our initial attack and large fire suppression capability. In addition, the fire protection and initial attack capability of thousands of rural and volunteer fire departments was increased through the rural and volunteer fire assistance grant programs. As already noted, there is clear evidence that the funds provided through the National Fire Plan and the additional resources acquired with them made a difference in the suppression and containment of fires, including fires located in the wildland urban interface.

It appears from the report that allowing more fires to burn naturally will automatically provide greater public and firefighter safety. Due to the heavy build up of fuels in forests and rangelands, allowing more fires to burn without suppression action will not promote efficiency nor result in decreasing suppression costs, but will, in fact, increase the risk of escape and increase potential damage and suppression cost. Across the nation, almost 100 million acres of federal land are at high risk from catastrophic fire and nearly 11,000 communities adjacent to them are at risk. A combination of apparent long-term weather changes, as evidenced by drought-like conditions over large portions of the nation for the last 3 years and expansion of housing into flammable forests and grasslands, accentuates the need for a strong prevention and suppression program. This need for effective and efficient firefighting capability will remain for many years. Until ecosystems surrounding communities are returned to natural healthy conditions through an aggressive fuel hazard reduction program, including mechanical thinning, suppression costs will continue to rise.

**Recommendations for Executive Actions:**

The recommendations are consistent with actions that are necessary to improve the delivery of the preparedness program for all agencies. In fact, as acknowledged in the report in many cases efforts are underway to resolve these issues. A brief description of the efforts to improve wildland fire preparedness and the overall wildland fire management program are:



*Recommendation 1: Ensure that fire management plans are completed expeditiously for all burnable acres, and are consistent with the national fire policy.*

The Forest Service and the Department of the Interior (DOI) formed a Fire Management Plan (FMP) Improvement Working Group in November 2001. The group is charged with reviewing all FMP procedures currently in use by the various land management agencies and for developing a single, landscape-scale, interagency FMP template for both the Forest Service and the fire management bureaus in the DOI. This FMP template will insure that the Guiding Principles and Policy goals from both the 1995 Federal Wildland Fire Management Policy and the 2001 Policy Review, as well as the goals and collaborative commitment from the National Fire Plan, become institutionalized in the fire management-planning framework. The FMP template will provide clear and uniform guidance for a seamless, cross boundary approach to wildland fire management and fuels hazard reduction.

The agencies will soon have a schedule to complete the remaining Fire Management Plans consistent with the Federal Wildland Fire Management Policy. The Forest Service and DOI will be 100 percent compliant by the end of 2004. New FMP's starts will incorporate concepts developed by the FMP Improvement Working Group.

*Recommendation 2: Establish a single planning and budgeting system, applicable to all fire agencies, to determine firefighting personnel and equipment needs in accordance with up-to-date fire management plans.*

Immediate steps have been taken to improve the consistency and cohesive nature of wildland fire management budget requests for the Forest Service and DOI using information generated from existing systems. Steps have also been taken to present budget information and explain budget execution for the National Fire Plan in a seamless fashion.

In addressing the need to develop a single budget system, the Forest Service, DOI, and State representatives have completed a report entitled "Developing an Interagency, Landscape-scale Planning Analysis and Budget Tool". This report recommends that the Department of Agriculture and the Department of the Interior develop and implement a common interagency fire management process within the next five years. The tool will provide, for all agencies, a uniform, performance-based system for identifying the preparedness and other resources necessary to deliver a cost effective fire management program consistent with National Fire Plan goals.

Agency and Departmental leadership, Appropriation Committee Staff, and the Office of Management and Budget have been briefed on this new system. All are supportive of the objectives and deliverables. We have assigned a project manager and established a technical team to begin organizing the project, establishing a timeline and developing a project budget. As interim components are developed and tested, they will be deployed and implemented, gradually enhancing preparedness analysis, program planning, and budget formulation until full deployment is achieved.

*Recommendation 3: Develop performance measures identifying the results to be achieved with the personnel and equipment obtained with the additional funding provided under the National Fire Plan.*

The Department of the Interior and the Department of Agriculture have developed common wildland fire management performance goals and measures with input from a variety of external stakeholders. Both Departments within a month will formally adopt these measures. These goals and measures will be incorporated into the Departments' overall Strategic Plans. The Departments still need to develop a data dictionary for common definitions of outputs and measures, validate new performance measures with baseline data, and refine information collection systems to ensure that the right data is collected to measure results. The final performance measures will be available for use in formulation of the 2004 budget. FY 2004 will be the first year that performance data will be collected for the complete set of these measures.

*Recommendation 4: Change the Department of the Interior method for allocating and reporting fire-fighting personnel costs similar to the method used by USDA-Forest Service to better reflect costs of wildland fire suppression.*


The Department of the Interior and the Forest Service are both concerned about accurately identifying the costs of wildland fire incidents as well as the cost of readiness and program management. At this time, DOI bureaus are uncertain whether shifting "base 8" regular hours from preparedness accounts to fire incident accounts or some other methodology would best accomplish this goal. Shifting "base 8" regular hours for preparedness-funded personnel would make it easier to account for a larger portion of total wildland fire incident costs, however it only addresses part of the problem. To fully accomplish the GAO's goal for better accounting of suppression costs, the bureaus also would need to shift the "base 8" costs for hazard fuels and wildland urban interface funded personnel.


The current DOI approach is based on a November 1989 DOI Inspector General Audit Report "Fire Program Funding Process" 90-12, which recommended that all bureaus identify separately the estimated funding requirements for fire management and presuppression activities, and include those amounts in annual budget submissions to Congress. This report further recommended that emergency suppression and rehabilitation activities be funded separately from fire management and presuppression (now called readiness and program management). In the 1990 wildland fire appropriation process, Congress agreed with the Inspector General recommendation that readiness and program management activities should be funded "up front".

The Bureau of Land Management (BLM) accomplishes the same incident cost tracking goal by adding the fire project number to the base preparedness cost account. This allows the BLM to identify these costs without actually charging salaries to a different base account. The other DOI bureaus currently do not utilize this feature of the Federal Financial System. Utilizing the BLM model, the Department is taking steps to initiate a uniform cost tracking system among its four-wildland fire management bureaus. Once a uniform process is in place, we will evaluate the suitability of this approach for accurately capturing wildland fire suppression costs. We will share these results with the Forest Service and other stakeholders such as the Office of

Management and Budget, Congress, and the GAO. Whichever solution is adopted, either shifting the "base 8" or identifying those costs through the project cost accounting system, the key to accurately capturing incident costs is to tie all costs to a single fire incident number that all bureaus would use.

In closing, let us reiterate that much has been accomplished in the relatively short time that the agencies received direction and funding for the National Fire Plan. We are currently addressing many of the issues raised in the report and believe that our approaches will continue to have effective and positive results for communities and resources. We believe that given adequate time and continued funding, the improvements already underway in fire management planning, budgeting, and performance measurement we will resolve the issues identified by the GAO, and improve the effectiveness of our firefighting preparedness program.

 MAR 25 2002  
MARK REY  
Under Secretary  
Natural Resources and the Environment  
U.S. Department of Agriculture

  
P. LYNN SCARLETT  
Assistant Secretary  
Policy, Management and Budget  
U.S. Department of the Interior

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# Appendix III: GAO Contacts and Staff Acknowledgments

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## GAO Contacts

Barry T. Hill (202) 512-3841  
Cliff Fowler (202) 512-8029

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## Staff Acknowledgments

In addition to those named above, Paul Bollea; Frank Kovalak; Paul Lacey; Carol Herrnsstadt Shulman; and, in special memory, our colleague and friend, John Murphy made key contributions to this report.

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